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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,494	11/05/2003	Hiroto Isoda	03187	6272

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DENNISON, SCHULTZ & MACDONALD  
1727 KING STREET  
SUITE 105  
ALEXANDRIA, VA 22314

EXAMINER
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WALFORD, NATALIE K

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/700,494	<b>Applicant(s)</b> ISODA, HIROTO	
	<b>Examiner</b> Natalie K. Walford	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5,6 and 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-6, and 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The Amendment, filed on June 2, 2006, has been entered and acknowledged by the Examiner.

Cancellation of claims 3-4 and 7 has been entered. Newly claims 8-18 has been entered  
Claims 1-2, 5-6, and 8-18 are pending in the instant application.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-6, and 8-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hochstein (US 6,045,240).

Regarding claim 1, Hochstein discloses a light emitting device in figure 8 comprising: a base member formed from a plurality of electric conductive members (item 50) alternating with insulating members (item 26), each of the insulating members being disposed to secure and isolate conductive members (see FIG. 8), the base member presenting first and opposite faces which are composed of alternating conductive and insulating members; a light emitting diode (item 28) mounted on a side of one of the conductive members on the first face; an electrically connecting means (items 30 and 32) to connect the light emitting diode and with at least two of the conductive members for applying current to the light emitting diode; a sealing member (see

FIG. 3, item not labeled) covering the light emitting diode and the electrically connecting means for protection; and a projection (FIG. 3, item 36a) outwardly extended for heat release from a side of the conductive member different from the side on which the light emitting diode is mounted.

Regarding claim 2, Hochstein discloses the device according to claim 1 wherein the projection is connected to an external cooling member for heat radiation (FIG. 3, item 38).

Regarding claim 5, Hochstein discloses the device according to claim 2 further comprising an external print substrate (FIG. 3, item 36) secured to the base member at the opposite face thereof and having an opening so as to insert the projection of the conductive member and to contact the projection with the cooling member secured to the print substrate at the other side thereof (column 5, lines 32-54).

Regarding claim 6, Hochstein discloses the device according to claim 2 wherein the cooling member has a plurality of cooling fins (column 5, lines 34-35).

Regarding claim 8, Hochstein discloses a light emitting device in figures 3 and 8 comprising: a base member formed by combining at least first and second electric conductive members (item 50) and insulating members (item 26), each of the insulating members disposed to secure and isolate each of the conductive members (see FIG. 8); a circuit substrate (item 36) mounted on the base member, the circuit substrate having an opening which exposes a part of the upper surface of the first conductive member (area surrounding bottom of item 50); a light emitting diode (item 28) mounted on the upper surface of the first conductive member within the opening; and electrical connecting means (items 30 and 32) provided on the circuit substrate for electrically connecting the light emitting diode with at least the second conductive member.

Regarding claim 9, Hochstein discloses the device according to claim 8, further comprising a projection (FIG. 3, item 36a) projected from at least a surface different from the upper surface of the first conductive member.

Regarding claim 10, Hochstein discloses the device according to claim 9, further comprising an external cooling member for heat radiation, wherein the projection is connected to the external cooling member (FIG. 3, item 38).

Regarding claim 11, Hochstein discloses the device according to claim 8, wherein circuit substrate has at least one circuit pattern secured (FIG. 8, item 58) and at least one wire connected between the circuit and the light emitting diode so as to apply current to the light emitting diode (column 6, lines 26-34).

Regarding claim 12, Hochstein discloses the device according to claim 9, further comprising an external print substrate (FIG. 3, item 36) secured to the base member at an upper side thereof and having an opening so as to insert the projection of the conductive member and to contact the projection with the cooling member secured to the print substrate at the other side thereof (column 5, lines 32-54).

Regarding claim 13, Hochstein discloses the device according to claim 10, wherein the cooling member has a plurality of cooling fins (column 5, lines 34-35).

Regarding claim 14, Hochstein discloses a light emitting device in figures 3 and 8 comprising: a base member formed by combining at least three electric conductive members (item 50) and insulating members (item 26), each of the insulating members being disposed to secure and isolate each of the conductive members (see FIG. 8); a circuit substrate (item 36) mounted on the base member, the circuit substrate having an opening which exposes a part of an

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upper surface of a first of said conductive members (area surrounding bottom of item 50); a light emitting diode (item 28) mounted on the upper surface of the first conductive member within the opening; electrically connecting means (items 30 and 32) provided on the circuit substrate for electrically connecting the light emitting diode with the second and third conductive members; a projection (item 36a) outwardly extended for heat release from the other side of the upper surface of the first conductive member.

Regarding claim 15, Hochstein discloses the device according to claim 14, wherein the projection is connected to an external cooling member for heat radiation (FIG. 3, item 38).

Regarding claim 16, Hochstein discloses the device according to claim 14, wherein the circuit substrate has at least one circuit pattern (FIG. 8, item 58) secured thereto and at least one wire connected between the circuit pattern and the light emitting diode so as to apply current to the light emitting diode (column 6, lines 26-34).

Regarding claim 17, Hochstein discloses the device according to claim 15, further comprising an external print substrate (FIG. 3, item 36) secured to the base member at an upper side thereof and having an opening so as to insert the projection of the conductive member and to contact the projection with the cooling member secured the print substrate at the other side thereof (column 5, lines 32-54).

Regarding claim 18, Hochstein discloses the device according to claim 15, wherein the cooling member has a plurality of cooling fins (column 5, lines 34-35).

***Response to Arguments***

Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nkW

*Handwritten signature*  
8/17/06

*Handwritten signature: Joseph Williams*  
**JOSEPH WILLIAMS**  
**PRIMARY EXAMINER**